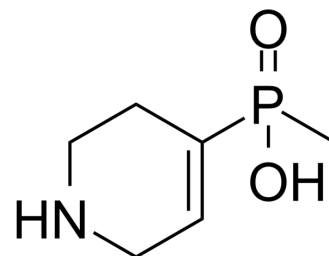


## TPMPA

<b>Cat. No.:</b>	HY-101359
<b>CAS No.:</b>	182485-36-5
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>12</sub> NO <sub>2</sub> P
<b>Molecular Weight:</b>	161.14
<b>Target:</b>	GABA Receptor
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	TPMPA, a hybrid of isoguvacine and 3-APMPA, is the first selective antagonist for a GABA <sub>C</sub> receptor ( $K_B = 2.1 \mu\text{M}$ ), but not to interact with GABA <sub>A</sub> ( $K_B = 320 \mu\text{M}$ ) or GABA <sub>B</sub> receptors ( $EC_{50} = 500 \mu\text{M}$ ). TPMPA has the potential for the research of suppressing orientation selectivity in ganglion cells <sup>[1][2][3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	KB: 2.1 $\mu\text{M}$ (GABA <sub>C</sub> )
<b>In Vitro</b>	TPMPA antagonizes the GABA currents of $\rho 1$ receptors ( $IC_{50} = 1.6 \mu\text{M}$ ) and those of the chimeric $\rho 1/\alpha 1$ receptors with approximately the same potency ( $IC_{50} = 1.3 \mu\text{M}$ ) <sup>[1]</sup> . TPMPA shows weak activity against rho-1 and rho-2 receptors, with the $K_B$ values of 2.0 and 15.6 $\mu\text{M}$ , respectively <sup>[2]</sup> MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

- [1]. Martínez-Torres A, et al. GABARho 1/GABAAalpha 1 receptor chimeras to study receptor desensitization. Proc Natl Acad Sci U S A. 2000;97(7):3562-3566.
- [2]. Graham A. R. Johnston, et al. Neurologically-active compounds. WO1998058939A1
- [3]. Johnston GA. GABA<sub>C</sub> receptors: relatively simple transmitter -gated ion channels?. Trends Pharmacol Sci. 1996;17(9):319-323.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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